

Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the present application:

Listing of Claims:

Claims 1-69 (Canceled).

Claim 70 (Previously Amended). Apparatus comprising:

a collector computer including a vision tool selector configured to select, via a manual entry interface at the collector computer, at least one chosen vision tool and, from among plural selectable vision tools, corresponding vision tool parameters corresponding to the chosen vision tool;

a transmitter configured to send, from the collector computer to a machine vision engine located remotely from the collector computer and via a communications network, (i) image data including at least one given image to be analyzed by the chosen vision tool, and (ii) the corresponding vision tool parameters; and

wherein the machine vision engine is remote from the computer and includes selectable vision tools including the chosen vision tool, the selectable vision tools having been configured to, when selected, carry out vision operations including pattern location on the given image.

Claim 71 (Cancelled).

Claim 72 (Currently Amended). The apparatus according to claim ~~70~~⁷¹, wherein the machine vision engine includes machine vision software encoded on computer-readable media and executed by a computer.

Claim 73 (Currently Amended). The apparatus according to claim ~~70~~74, wherein the vision operations include guidance.

Claim 74 (Currently Amended). The apparatus according to claim ~~70~~74, wherein the vision operations include inspection.

Claim 75 (Currently Amended). The apparatus according to claim ~~70~~74, wherein the vision operations include gauging.

Claim 76 (Currently Amended). The apparatus according to claim ~~70~~74, wherein the vision operations include identification.

Claim 77 (Currently Amended). The apparatus according to claim ~~70~~74, wherein the vision operations include a selectable guidance vision tool configured to, when selected, (i) obtain guidance operation vision tool parameters including a model pattern and alignment operation constraints, and (ii) carry out a corresponding guidance operation corresponding to the obtained guidance operation vision tool parameters.

Claim 78 (Previously Presented). The apparatus according to claim 77, wherein the alignment operation constraints include parameters defining a minimum match quality and allowable scale and rotation change.

Claim 79 (Previously Presented). The apparatus according to claim 70, wherein the vision tool parameters input includes a keyboard of the computer.

Claim 80 (Previously Presented). The apparatus according to claim 70, wherein the vision tool parameters input includes a mouse of the computer.

Claim 81 (Previously Presented). The apparatus according to claim 70, wherein the vision tool parameters input includes a touch pad of the computer.

Claim 82 (Previously Presented). The apparatus according to claim 70, wherein the vision tool parameters input is configured to receive the corresponding vision tool parameters via manual entry at the computer.

Claim 83 (Previously Presented). The apparatus according to claim 82, wherein the manual entry is via a manual entry interacting with an application program run on the computer.

Claim 84 (Previously Presented). The apparatus according to claim 70, wherein the computer includes the transmitter.

Claim 85 (Previously Presented). The apparatus according to claim 70, wherein the communications network includes an internetwork.

Claim 86 (Previously Presented). The apparatus according to claim 85, wherein the internetwork includes the Internet.

Claim 87 (Previously Presented). The apparatus according to claim 70, wherein the given image includes an image file.

Claim 88 (Previously Presented). The apparatus according to claim 87, wherein the image file includes a JPEG file.

Claim 89 (Previously Presented). The apparatus according to claim 87, wherein the image file includes a bmp file.

Claim 90 (Previously Presented). The apparatus according to claim 70, wherein the transmitter is configured to send, via the communications network, an indication of the selected one or more given vision tools.

Claim 91 (Previously Presented). The apparatus according to claim 70, wherein the machine vision engine includes machine vision software encoded on computer-readable media and executed by a computer.

Claim 92 (Previously Presented). The apparatus according to claim 70, wherein the vision operations include guidance.

Claim 93 (Previously Presented). The apparatus according to claim 70, wherein the vision operations include inspection.

Claim 94 (Previously Presented). The apparatus according to claim 70, wherein the vision operations include gauging.

Claim 95 (Previously Presented). The apparatus according to claim 70, wherein the vision operations include identification.

Claim 96 (Previously Presented). The apparatus according to claim 70, wherein the vision operations include a selectable guidance vision tool configured to, when selected, (i) obtain guidance operation vision tool parameters including a model pattern and alignment operation constraints, and (ii) carry out a corresponding guidance operation corresponding to the obtained guidance operation vision tool parameters.

Claim 97 (Previously Presented). The apparatus according to claim 96, wherein the vision tool parameters include parameters defining a minimal match quality and allowable scale and rotation change.

Claim 98 (Previously Presented). The apparatus according to claim 70, further comprising a client data procurer configured to send an image acquisition command to an image acquirer to acquire image data including the given image data.

Claim 99 (Previously Presented). The apparatus according to claim 70, further comprising a receiver configured to receive results data originating from the machine vision engine, the results data including a result of the machine vision engine having analyzed, with the

selected one or more given vision tools, the given image sent by the transmitter in accordance with the corresponding vision tool parameters sent by the transmitter.

Claim 100 (Previously Amended). The apparatus according to claim 99, wherein the collector computer includes the receiver.

Claim 101 (Previously Presented). The apparatus according to claim 70, further comprising an image acquirer configured to capture and store an image of a part.

Claim 102 (Previously Presented). The apparatus according to claim 101, wherein the image acquirer includes a frame grabber.

Claim 103 (Previously Presented). The apparatus according to claim 101, wherein the image acquirer is positioned on a production line.

Claim 104 (Previously Presented). The apparatus according to claim 101, further comprising the machine vision engine.

Claim 105 (Previously Presented). Apparatus comprising:

a computer including a receiver configured to receive, from a remote source via a communications network, image data including at least one given image to be analyzed by one or more given vision tools that have been selected, and corresponding vision tool parameters corresponding to the selected one or more given vision tools that have been selected to analyze the given image;

the computer being configured to, following receiving certain data by the receiver, cause a machine vision engine to analyze, with the selected one or more given vision tools, the given image to be analyzed in accordance with the corresponding vision tool parameters received by the receiver; and

wherein the machine vision engine includes the set of individually selectable vision tools having been configured to, when selected, carry out vision operations including pattern location.

Claim 106 (Previously Presented). The apparatus according to claim 105, wherein the vision operations include guidance.

Claim 107 (Previously Presented). The apparatus according to claim 105, wherein the vision operations include inspection.

Claim 108 (Previously Presented). The apparatus according to claim 105, wherein the vision operations include gauging.

Claim 109 (Previously Presented). The apparatus according to claim 105, wherein the vision operations include identification.

Claim 110 (Previously Presented). The apparatus according to claim 105, wherein the vision operations include a selectable guidance vision tool configured to, when selected, (i) obtain guidance operation vision tool parameters including a model pattern and alignment operation constraints, and (ii) carry out a corresponding guidance operation corresponding to the obtained guidance operation vision tool parameters.

Claim 111 (Previously Presented). The apparatus according to claim 110, wherein the obtained guidance operation vision tool parameters include parameters defining a minimum match quality and allowable scale and rotation change.

Claim 112 (Previously Presented). The apparatus according to claim 105, wherein the computer includes the machine vision engine.

Claim 113 (Previously Presented). The apparatus according to claim 106, wherein the communications network includes an internetwork.

Claim 114 (Previously Presented). The apparatus according to claim 113, wherein the internetwork includes the Internet.

Claim 115 (Previously Presented). The apparatus according to claim 105, wherein the selected one or more given vision tools that have been selected have been selected at a location remote from the computer.

Claim 116 (Previously Presented). The apparatus according to claim 105, further comprising a validator configured to verify associated validation data to ensure client account security, the associated validation data having been associated with the received given image, the selected one or more given vision tools, and the corresponding vision tool parameters.

Claim 117 (Previously Presented). The apparatus according to claim 116, wherein the associated validation data has been received by the receiver.

Claim 118 (Previously Presented). A system comprising:

a computer in a manufacturing facility, the computer including a vision tool parameters input configured to receive, at the computer, corresponding vision tool parameters corresponding to at least one of selected one or more given vision tools;

a transmitter configured to send, from the computer to a machine vision engine located remotely from the computer and via a communications network, (i) image data including at least one given image to be analyzed by the selected one or more given vision tools, and (ii) the corresponding vision tool parameters; and

wherein the machine vision engine includes selectable vision tools including the selected one or more given vision tools, the selectable vision tools having been configured to, when selected, carry out vision operations including pattern location on the given image.

Claim 119 (Previously Presented). A method comprising:

receiving, at a computer including a vision tool parameters input, corresponding vision tool parameters corresponding to at least one of selected one or more given vision tools;

a transmitter sending, from the computer to a machine vision engine located remotely from the computer and via a communications network, (i) image data including at least one given image to be analyzed by the selected one or more given vision tools, and (ii) the corresponding vision tool parameters; and

wherein the machine vision engine is remote from the computer and includes selectable vision tools including the selected one or more given vision tools, the selectable vision tools having been configured to, when selected, carry out vision operations including pattern location on the given image.

Claim 120 (Previously Presented). Computer-readable media encoded with data, the data, when interoperably read by a computer, causing:

receiving, at a computer including a vision tool parameters input, corresponding vision tool parameters corresponding to at least one of selected one or more given vision tools;

a transmitter sending, from the computer to a machine vision engine located remotely from the computer and via a communications network, (i) image data including at least one given image to be analyzed by the selected one or more given vision tools, and (ii) the corresponding vision tool parameters; and

wherein the machine vision engine is remote from the computer and includes selectable vision tools including the selected one or more given vision tools, the selectable vision tools having been configured to, when selected, carry out vision operations including pattern location on the given image.

Claim 121 (Previously Presented). The apparatus according to claim 83, wherein the vision tool parameters input is located in a manufacturing environment.